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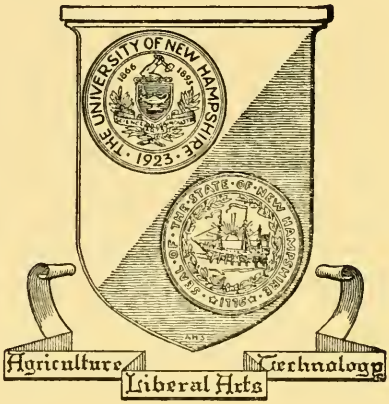

The University
of
New Hampshire

Bulletin 220

RESULTS OF SEED TESTS

Made July 1, 1924 to June 30, 1925

Tests have been made on four hundred and twenty different samples of seed this year. Of this number sixty-five have been reported to individuals or companies who have forwarded samples for investigation in order to obtain proper information for labeling when putting seed on the market for the first time, or to get retests on seed held over for sale from the previous year's supply, or to satisfy any other personal curiosity which the holder may entertain in regard to a given sample of seed in which he is interested. Such tests are not made public.

Three hundred and fifty-five samples have been examined in the State Laboratory for comparison with the information stated on their accompanying labels. The results which are carefully recorded for publication in this bulletin, represent one phase of control work in accordance with the State Seed Law which aims not only to have all seed sold under a proper guarantee, but to make sure that the seed offered and actually found in the market corresponds within reasonable variations to such guarantees as accompany it.

Such samples, then, have been collected in a most careful manner by an authorized official of the State Department of Agriculture in conformity to accepted rules and regulations and with proper equipment to insure the drawing of a small sample which shall be representative of the larger bulk as offered for sale. These small amounts are forwarded at once in packages properly labeled to the laboratory at Durham for detailed investigation. Under a lens, they are separated into four parts, made up respectively of pure seed of the kind indicated on the label, other crop seed

present, weed seeds, and inert matter such as dirt, hulls, stems, etc. Each part is carefully weighed on analytical balances to determine the percentage of the whole which it represents. A report is returned to the dealer from whom the sample was taken and indicates clearly whether the seed which he is selling conforms to the guarantee in regard to the percentage of pure seed.

The pure seed is subjected to further tests in regard to its viability. It is placed in incubators, usually in duplicate groups of 100 seeds each, and kept on moist blotters, cloths, or similar suitable material, in an atmosphere saturated with moisture and carefully controlled as to temperature. With many seeds a daily change of temperature is required varying from 68°F. to 86°F. Many different means have to be resorted to in order to make the environment most congenial for the seed to grow, but all methods employed are standardized and prescribed by the Association of Official Seed Analysts, which is a nation-wide organization of considerable insight based on many years of research work with seeds. The results of such incubation after a definite length of time, varying with the kind of seed from four days to twenty-eight, are observed and recorded as the germination. If the two or more duplicate samples run together do not show similar results for any reason, the tests are repeated. This report accompanies the purity test and shows the dealer that the seed germinates as guaranteed or otherwise.

Seed which does not conform to its guarantees must be relabeled. Certain allowances are made, however, due to the fact that nature and human effort always evidence some variation. Discrepancies of 6 to 10 per cent in germination may be accepted depending on how nearly perfect the seed is guaranteed to be. In judging purity, the sample is assumed to be made up

of two parts: (1) pure seed, and (2) all else. The variation allowed, or tolerance, then, is two-tenths of 1 per cent plus 20 per cent of the lesser part, this formula to be applied to the figure which is obtained by the official analyst.

Most dealers appreciate the work of seed testing and are anxious to co-operate in making sure that their seeds conform in every way to the requirements. Misunderstanding or lack of information still prompts a few to try to evade at least the spirit if not the letter of the law. Assuming that lack of appreciation or knowledge is more often the cause of delinquency than intentional evasion of the regulations, we wish to call attention to the matter of seed mixtures. The Seed Law requires that mixtures of seeds shall carry a label stating clearly that fact and also the percentage of each kind of agricultural seed present in excess of five per cent of the total by weight. If alsike clover and timothy grass seeds are mixed there is no objection to selling them but they must be labeled with a statement of the percentage of each seed present.

Lawn grass mixtures must be labeled with the percentages of the different seeds which are included. The few lawn grass mixtures that we have examined recently in this State are either of questionable utility as a mixture or carry an abnormally high percentage of inert, worthless material. From a practical standpoint, to allow the sale of a lot of rubbish just because it may be labeled "lawn grass seed" is undesirable. It is also unfortunate that an intelligent buyer should pay exorbitant prices for a "lawn seed" which contains practically nothing but red top and timothy, even though such a mixture might entirely satisfy his requirements. Misrepresentation is strongly indicated by the labels on some of the few samples found about the state and is exactly what the law was designed to correct. Does a request for a strict observance of the

law seem unreasonable? If we help the purchaser to know what kind of seed he requires, the interests of the dealer who wishes to sell a desirable and satisfactory mixture of good seeds are jeopardized if this provision of the law is not observed. To ask that such mixtures be properly labeled in accordance with the provision of the law or kept off the market appeals to us as being entirely justifiable. We shall insist on the observation of this requirement.

A few samples of seed with an abnormal amount of "hard seeds" were found and reported this year. Certain seeds among the legumes have very hard impervious seed coats and will not germinate in any reasonable length of time. In some cases they may live over in the ground a year or more before absorbing moisture enough to sprout. Just when such seed will start to grow is very uncertain. And its value to the farmer is questionable as a consequence. In the laboratory, they never germinate. Such seed we indicate as "hard seeds." Some plants like sweet clover (Melilotus) normally produce such a high percentage of hard seeds that special machinery has been devised for scarifying (scratching) the seed coats so they will admit water and allow the germ to develop. Nearly all legumes produce occasional hard seeds and most of the small legumes like the clovers and alfalfas normally evidence an appreciable percentage. A few samples this year showed an exceptionally large number of such seeds. One white clover was reported, for example, with more than half hard seeds. Surely, dealers should exercise some care not to get such seed. If similar samples persist in appearing, we should probably amend our law or its rules to make the reporting of the percentage of hard seeds present a requirement of the guarantee.

The desirability of using native small legume seed rather than imported has been pretty well demon-

strated for us. The discrepancy in price and ease of substitution tend to give us the less desirable imported varieties most of the time. There is a growing interest in buying seed for clover and alfalfa which is known to be native grown. The only way to get such seed is to insist on its being put up in bags, sealed, and certified in the state where grown. A few dealers are offering such seed in our state and farmers should take advantage of the opportunity to pay the little additional cost and be sure of obtaining native grown seed.

SEED EXAMINATION, 1925

Sample No.	Kind of Seed, Brand, Name and Address of Dealer	Purity		Germination	
		F'nd	Guaranteed	F'nd	Guaranteed
5220	Alfalfa (*Grimm*) ..... R. L. Costello, Portsmouth	S	97	A	88
5254	Alfalfa (*Grimm*)..... Hill Hardware & Paint Co., Nashua	A	99.34	A	92
5095	Alfalfa (*Pine Tree*) ..... McQuesten & Lewis, Manchester	S	99.14	S	94
5105	Alfalfa (*Pine Tree,Grimm,* 27111)... Merrimack Co. Farmers' Exchange Concord.	S	99.74	S	94
5059	Alfalfa (*Blackfoot Grimm*)..... John B. Varick Company, Manchester	A	99	A	85
5060	Alfalfa (*Pine Tree*)..... John B. Varick Company, Manchester	S	97	76	88
5167	Alsike (*Choice*)..... Ayers & Jenkins Company, Rochester	S	95.10	S	93
5464	Alsike (*Freedom*) ..... Bell Hardware Company, Derry	S	95	S	85
5219	Alsike (*Pine Tree*) ..... R. L. Costello, Portsmouth	S	96	S	94
5280	Alsike (*Ace,* 21551) ..... J. Cushing Company, Milford	A	94.50	S	92
5479	Alsike (*XX*) ..... Edson & Kinne, Littleton	88.82	94.30	S	93
5161	Alsike (*Pan American*)..... E. C. Foss Company, Rochester	A	97.05	S	90
5416	Alsike (*Pine Tree,* 021996) ..... C. H. Jameson, Colebrook	S	98	S	95
5491	Alsike (*White Mtn. Extra Fancy*).. C. C. King Company, Whitefield	S	98.50	S	92
5063	Alsike (*Ace,* 21266) ..... Manchester Hardware Company, Manchester	S	95.55	S	85
5084	Alsike (*Pine Tree*) ..... McQuesten & Lewis, Manchester	S	97.30	S	98
5121	Alsike ..... Merrimack Co. Farmers' Exchange, Concord	A	95.52	S	92
5090	Alsike (*Pan American*)..... J. J. Moreau & Son, Manchester	S	97	S	90
5328	Alsike (*Ace,* 21697) ..... J. H. Morrill, Laconia	S	96.90	S	90
5305	Alsike ..... Muzzey & Hopkins, Lakeport	S	98.50	79	92
5210	Alsike (*Eureka*) ..... F. W. Neal, Dover	S	98	S	90
5414	Alsike (*Pine Tree*) ..... D. A. Noyes, Colebrook	S	99.25	S	95
5145	Alsike ..... W. F. Peel, Nashua	S	95.60	79	94
5348	Alsike (21231) ..... O. A. Plummer, Tilton	S	98.40	S	94
5124	Alsike (*Pan American*)..... Rand, Ball & King, Claremont	94.78	97.50	A	90
5320	Alsike (*Ace*) ..... Rand & Dearborn, Laconia	S	95	S	89
5333	Alsike (*Liberty*) ..... Rand & Dearborn, Laconia	S	97.85	S	98

A—Above. S—Satisfactory.

SEED EXAMINATION, 1925—*Continued.*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer	Purity		Germination	
		F'nd	Guaranteed	F'nd	Guaranteed
5335	Alsike (*Pan American*) ..... H. C. Sanborn, Laconia	S	97.50	A	90
5190	Alsike (*Ace*) ..... J. H. Seavey, Dover	S	98.05	S	93
5485	Alsike (*Ace*) ..... The Frank Smith Co., Lancaster	92.89	95	69	91
5408	Alsike ..... C. P. Stevens, Estate, Franklin	S	97	S	91
5176	Alsike ..... Strafford Co. Grain Mill, Rochester	S	97.80	S	93
5135	Alsike (*Ace*) ..... Thompson & Hoague, Concord	S	95.52	S	92
5057	Alsike (*Pine Tree*) ..... John B. Varick Co., Manchester	S	97.50	A	90
5467	Barley (*6-row*) ..... Bell Hardware Company, Derry	S	98	S	90
5497	Barley (*2-row*) ..... F. P. Brown, Whitefield	S	94.77	A	98
5236	Barley (*6-row*) ..... R. L. Costello, Portsmouth	S	99	A	95
5488	Barley (*White Mountain*) ..... Edson & Kinne, Littleton	S	99	S	92
5535	Barley (*6-row, Monadnock Extra Quality*) ..... Holbrook Grocery Co., Woodsville	S	96.82	A	91
5203	Barley (*Montana, 2-row*) ..... Jenness Hardware Co., Dover	S	98	A	90
5275	Barley (*Beardless*) ..... Kendall & Wilkins, Milford	S	98	S	95
5546	Barley (*6-row*) ..... C. N. Merrill & Son, Bristol	S	98	S	90
5098	Barley (*6-row, Montana*) ..... J. J. Moreau & Son, Manchester	S	98	S	91.50
5519	Barley (*6-row*) ..... Moulton & Clark, Lisbon	S	98	A	90
5212	Barley (*2-row*) ..... F. W. Neal, Dover	S	98	A	90
5429	Barley ..... D. A. Noyes, Colebrook	S	93.58	S	96
5430	Barley (*2-row*) ..... D. A. Noyes, Colebrook	S	96.01	A	94
5472	Barley (*6-row*) ..... Pike & Gale, Littleton	S	98	S	90
5193	Barley (*2-row*) ..... J. H. Seavey, Dover	S	98.24	A	94
5484	Barley (*6-row, Northwestern Recleaned*) ..... The Frank Smith Co., Lancaster	S	99	S	97
5395	Barley ..... C. P. Stevens, Est., Franklin	S	97	S	92
5133	Barley (*6-row*) ..... Thompson & Hoague, Concord	S	97.78	A	95
5056	Barley (*6-row*) ..... John B. Varick Co., Manchester	S	99.50	A	95
5242	Barley (*Montana*) ..... E. T. Willson, Farmington	S	98.28	A	94
5187	Bluegrass, (*Kentucky*) ..... Jenness Hardware Company, Dover	69.43	85	50	85
5196	Bluegrass, (*Kentucky*) ..... J. H. Seavey, Dover	S	71.50	S	78

A—Above. S—Satisfactory.

SEED EXAMINATION, 1925—*Continued.*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer	Purity		Germination	
		F'nd	Guaranteed	F'nd	Guaranteed
5055	Bluegrass, (*Kentucky*) ..... John B. Varick Co., Manchester	A	72	S	75
5177	Buckwheat (*Japanese*) ..... Ayers & Jenkins Co., Rochester	S	99	A	95
5234	Buckwheat (*Japanese*) ..... R. L. Costello, Portsmouth	S	98	S	95
5545	Buckwheat (*Japanese*) ..... C. N. Merrill & Son, Bristol	S	98	A	90
5114	Buckwheat (*Japanese*) ..... Merrimack County Farmers' Exchange, Concord	S	99	A	95
5085	Buckwheat (*Silverhull*) ..... J. J. Moreau & Son, Manchester	S	97	78.5	90
5326	Buckwheat (*Japanese*) ..... J. H. Morrill, Laconia	S	99	S	95
5044	Buckwheat (*Japanese*) ..... John B. Varick Co., Manchester	S	99	A	95
5457	Canada Field Peas..... Bell Hardware Co., Derry	S	98	S	90
5235	Canada Field Peas..... R. L. Costello, Portsmouth	S	96.06	S	96
5411	Canada Field Peas (*Fancy*)..... H. G. Holton, Lancaster	S	98	A	90
5417	Canada Field Peas (*White*)..... C. H. Jameson, Colebrook	S	99.50	S	88
5360	Canada Field Peas..... Meredith Grain Co., Meredith	S	95	A	90
5101	Canada Field Peas (*Choice*)..... J. J. Moreau & Son, Manchester	S	98	S	90
5267	Canada Field Peas..... Nashua Grain Company, Nashua	S	98	S	90
5218	Canada Field Peas..... F. W. Neal, Dover	S	98	S	98
5131	Canada Field Peas ..... Thompson & Hoague, Concord	S	99.50	A	86
5047	Canada Field Peas ..... John B. Varick Co., Manchester	S	96	A	88
5172	Corn (*Improved Leaming*)..... Ayers & Jenkins Co., Rochester	S	99.50	S	95
5179	Corn (*Improved Red Cob*)..... Ayers & Jenkins Co., Rochester	S	99.50	S	98
5463	Corn (*Pedigree Leaming*) ..... Bell Hardware Co., Derry	S	98	A	88
5465	Corn (*Longfellow*) ..... Bell Hardware Co., Derry	S	98	S	88
5369	Corn (*Excelsior*) ..... Chase Grain Co., Plymouth	S	98	S	90
5294	Corn (*Red Cob*)..... J. Jones & Son, Alton	S	98	S	90
5062	Corn (*Improved Leaming*)..... Manchester Hardware Co., Manchester	S	99.50	S	93
5080	Corn (*Longfellow Flint*)..... Manchester Hardware Co., Manchester	S	99.50	S	92
5081	Corn (*Sanford Flint*)..... Manchester Hardware Co., Manchester	S	99.50	S	94
5362	Corn (*Excelsior*) ..... Meredith Grain Co., Meredith	S	98	S	85

A—Above. S—Satisfactory.

SEED EXAMINATION, 1925—*Continued.*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer	Purity		Germination	
		F'nd	Guaranteed	F'nd	Guaranteed
5094	Corn (*Improved Leaming*) ..... J. J. Moreau & Son, Manchester	S	98	S	90
5099	Corn (*Early Canada*) ..... J. J. Moreau & Son, Manchester	S	98	S	90
5316	Corn (*Eureka*) ..... J. H. Morrill, Laconia	S	98	S	90
5523	Corn (*Gold Dollar*) ..... C. J. O'Neil, Woodsville	S	99	A	90
5516	Corn (*Early King*) ..... Fred Parker, Lisbon	S	99	S	90
5142	Corn (*Longfellow*) ..... W. F. Peel, Nashua	S	98	S	92
5148	Corn (*Red Cob*) ..... W. F. Peel, Nashua	S	98	S	88
5150	Corn (*Early Canada*) ..... W. F. Peel, Nashua	S	98	A	92
5471	Corn (*Sanford*) ..... Pike & Gale, Littleton	S	98	S	90
5349	Corn (*Mastodon*) ..... Ned C. Rogers, Tilton	S	95	S	92
5483	Corn ..... The Frank Smith Co., Lancaster	S	98	35	70
5138	Corn (*Leaming Fodder*) ..... Thompson & Hoague, Concord	S	99.50	S	95
5159	Lawn Seed ..... E. C. Foss Co., Rochester	74.19	80	not tested	85
5211	Lawn Seed ..... F. W. Neal, Dover	73.21	96	not tested	94
5163	Mangles (*Narbiton Giant Long Red*) E. C. Foss Co., Rochester	S	99	82 seeds	125
5552	Mangles (*Mammoth Long Red*)..... Hilliard & Kimball, Exeter	S	98	S	90
5093	Mangles (*Long Red*) ..... J. J. Moreau & Son, Manchester	S	98	S	80
5117	Mangles (*Lane's Imp. Sugar*)..... Thompson & Hoague, Concord	S	90	S	76
5183	Millet (*Hungarian*) ..... Ayers & Jenkins Co., Rochester	S	98.36	S	91
5337	Millet (*Hungarian*) ..... Belknap Co. Farmers' Exchange, Laconia	S	98	S	88
5496	Millet (*Hungarian*) ..... F. P. Brown, Whitefield	S	98.75	S	90
5502	Millet (*Hungarian, Fancy*) ..... G. F. Clement & Son, Lisbon	94.10	98	S	90
5156	Millet (*Hungarian, Choice*) ..... E. C. Foss Company, Rochester	S	98	S	90
5262	Millet (*Hungarian, Fancy*) ..... Hill Hardware & Paint Company, Nashua	S	98	S	88
5415	Millet (*Hungarian*) ..... C. H. Jameson, Colebrook	S	96.98	S	92
5310	Millet (*Hungarian*) ..... J. Jones & Son, Alton	93.19	98	S	80
5514	Millet (*Hungarian, Prime*)..... Lewis Bros., Lebanon	S	97.66	A	88
5083	Millet (*Hungarian*) ..... McQuesten & Lewis, Manchester	S	98.10	S	93
5363	Millet (*Hungarian*) ..... Meredith Grain Co., Meredith	S	90	S	80
5547	Millet (*Hungarian*) ..... C. N. Merrill & Son, Bristol	S	98	A	80

A—Above. S—Satisfactory.

SEED EXAMINATION, 1925—*Continued.*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer	Purity		Germination	
		F'nd	Guaranteed	F'nd	Guaranteed
5118	Millet (*Hungarian*) ..... Merrimack County Farmers' Exchange, Concord	S	98.36	S	91
5102	Millet (*Hungarian, Choice*) ..... J. J. Moreau & Son, Manchester	S	98	S	68
5324	Millet (*Hungarian*) ..... J. H. Morrill, Laconia	S	98.04	S	85
5264	Millet (*Hungarian*) ..... Nashua Grain Co., Nashua	S	98	S	90
5146	Millet (*Hungarian*) ..... W. F. Peel, Nashua	S	97.55	52	86
5247	Millet (*Hungarian*) ..... The Read-Esty Co., Farmington	A	98	S	80
5350	Millet (*Hungarian*) ..... C. N. Rogers, Tilton	S	98	S	90
5227	Millet (*Hungarian*) ..... S. A. Schurman & Son, Portsmouth	92.45	98	S	90
5418	Millet (*Hungarian*) ..... F. B. Spaulding Co., Lancaster	S	98	A	85
5115	Millet (*Hungarian*) ..... Thompson & Hoague, Concord	S	96.66	A	86
5077	Millet (*Hungarian*) ..... John B. Varick Co., Manchester	A	98	S	91
5244	Millet (*Hungarian*) ..... E. T. Willson, Farmington	S	98	S	87
5181	Millet (*Japanese, Fancy*) ..... Ayers & Jenkins Co., Rochester	S	98.30	S	92
5338	Millet (*Japanese*) ..... Belknap Co. Farmers' Exchange, Laconia	77.34	98	55	80
5466	Millet (*Japanese*) ..... Bell Hardware Co., Derry	89.96	98	23	90
5468	Millet (*Japanese*) ..... Bell Hardware Co., Derry	S	99	S	94
5520	Millet (*Japanese, Fancy*) ..... G. F. Clement & Son, Lisbon	S	98	S	90
5232	Millet (*Japanese*) ..... R. L. Costello, Portsmouth	S	95	A	93
5295	Millet (*Japanese*) ..... Daniels Grain & Grocery Company, Hudson	S	98	S	92
5492	Millet (*Japanese*) ..... C. C. King Co., Whitefield	88.66	93.05	70	81
5511	Millet (*Japanese*) ..... Lewis Bros., Lebanon	S	94.12	S	94
5067	Millet (*Japanese*) ..... Manchester Hardware Co., Manchester	S	95	S	92
5096	Millet (*Japanese*) ..... McQuesten & Lewis, Manchester	S	95.28	A	90
5323	Millet (*Japanese*) ..... J. H. Morrill, Laconia	S	95.06	S	90
5216	Millet (*Japanese, Fancy*) ..... F. W. Neal, Dover	S	95	S	90
5141	Millet (*Japanese*) ..... W. F. Peel, Nashua	S	98	A	92
5258	Millet (*Japanese*) ..... W. R. Peterson Co., Nashua	S	98	S	85
5351	Millet (*Japanese, Fancy*) ..... Ned C. Rogers, Tilton	S	98	S	90

A—Above. S—Satisfactory.

SEED EXAMINATION, 1925—*Continued.*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer	Purity		Germination	
		F'nd	Guaranteed	F'nd	Guaranteed
5314	Millet (*Japanese*) ..... H. C. Sanborn, Laconia	S	97	S	94
5189	Millet (*Japanese*) ..... J. H. Seavey, Dover	S	97.44	S	91
5139	Millet (*Japanese*) ..... Thompson & Hoague, Concord	S	97.44	S	91
5054	Millet (*Japanese*) ..... John B. Varick Co., Manchester	A	95	S	91
5353	Millet (*Japanese*) ..... Weeks & Smith, Meredith	S	95.03	S	93
5555	Millet (*Japanese*) ..... W. A. Young, Exeter	S	97	S	94
5178	Oats (*Patterson's*) ..... Ayers & Jenkins Co., Rochester	S	98.07	S	93
5180	Oats (*Swedish Type*) ..... Ayers & Jenkins Co., Rochester	S	99.07	A	95
5385	Oats (*White Mtn., Extra Fancy*)... W. B. Brown, Ashland	S	99.50	S	93
5498	Oats (*Pennant*) ..... F. P. Brown, Whitefield	S	99.50	92	—
5204	Oats (*Pennant*) ..... Freeman Corson, Rochester	S	99.50	99	—
5515	Oats ..... A. H. Hill, Lebanon	S	99	S	98.50
5197	Oats (*Swedish Select*) ..... Jenness Hardware Co., Dover	S	98	S	90
5273	Oats (*Abundance*) ..... Kendall & Wilkins, Milford	S	99	S	97
5503	Oats (*White Mtn. Extra Fancy*).... Lisbon General Store, Inc., Lisbon	S	99	A	97
5122	Oats (*Michigan Natural*) ..... Merrimack County Farmers' Exchange, Concord	S	95	A	90
5100	Oats (*Swedish Select*) ..... J. J. Moreau & Son, Manchester	S	98	S	96
5500	Oats (*Swedish Select*) ..... Moulton & Clark, Lisbon	S	99.80	S	98
5217	Oats (*Montana*) ..... F. W. Neal, Dover	S	98	S	94
5336	Oats (*Swedish Type*)..... Rand & Dearborn, Laconia	S	98	S	95
5322	Oats (*White Mtn. Extra Fancy*) H. C. Sanborn, Laconia	S	99.30	S	95
5439	Oats (*Rex*) ..... C. W. Sisco, Colebrook	S	98	S	97
5406	Oats (*Swedish Type*) ..... C. P. Stevens, Est., Franklin	S	99	S	95
5384	Oats (*White Mountain*)..... C. P. Stevens, Est., Franklin	S	99	S	95
5209	Oats ..... Strafford Co. Grain Mill, Rochester	99	—	A	87
5119	Oats (*Swedish Type*) ..... Thompson & Hoague, Concord	S	99.43	S	95
5045	Oats (*Swedish Type*) ..... John B. Varick Co., Manchester	S	98	A	96
5241	Oats (*Abundance*) ..... E. T. Willson, Farmington	S	98	A	94
5551	Oats (*Abundance*) ..... W. A. Young, Exeter	S	98	S	94
5137	Orchard Grass Thompson & Hoague, Concord	A	82.60	S	87

A—Above. S—Satisfactory.

SEED EXAMINATION, 1925—*Continued.*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer	Purity		Germination	
		F'nd	Guaranteed	F'nd	Guaranteed
5052	Orchard Grass ..... John B. Varick Co., Manchester	A	87	S	90
5182	Red Clover (*Crown Medium*)..... Ayers & Jenkins Co., Rochester	A	99.35	94.5	—
5518	Red Clover (*XXX Domestic*)..... G. F. Clement & Son, Lisbon	S	97	A	88
5543	Red Clover (*Ace*) ..... C. W. Coolidge, Bristol	S	98	S	90
5544	Red Clover (*Pine Tree*)..... C. W. Coolidge, Bristol	S	99	S	90
5175	Red Clover (*Crown*) ..... Freeman Corson, Rochester	S	99.35	S	90
5231	Red Clover (*Pine Tree, Medium*)... R. L. Costello, Portsmouth	S	99	S	90
5478	Red Clover (*Liberty*) ..... Edson & Kinne, Littleton	S	98.18	A	90
5480	Red Clover (*Mammoth*)..... Edson & Kinne, Littleton	S	95.45	S	90
5517	Red Clover (*XX*) ..... N. G. English, Lisbon	S	97	S	91
5461	Red Clover ..... Fosher & Co., Manchester	A	92	S	91
5173	Red Clover (*Pan American*)..... E. C. Foss Company, Rochester	S	98.50	A	90
5509	Red Clover (*Mammoth*) ..... C. M. Hildreth & Son, Lebanon	S	98	A	90
5431	Red Clover (*Special XXX*)..... Holbrook Grocery Co., Keene	S	99	S	91
5504	Red Clover (*Pine Tree, Medium*)... Holbrook Grocery Co., Woodsville	S	98	S	92
5505	Red Clover (*Domestic XXX*)..... Holbrook Grocery Co., Woodsville	S	97	A	88
5529	Red Clover (*XX*) ..... Holbrook Grocery Co., Woodsville	S	95	S	85
5199	Red Clover (*Eureka*) ..... Jenness Hardware Co., Dover	S	99.30	S	90
5508	Red Clover (*Domestic Medium*).... Lewis Bros., Lebanon	S	99	S	94
5068	Red Clover (*Ace Medium*)..... Manchester Hardware Co., Manchester	S	98.04	S	94
5082	Red Clover (*Ace Medium*)..... McQuesten & Lewis, Manchester	S	98.34	A	88
5549	Red Clover (*Pan American*) ..... C. N. Merrill & Son, Bristol	S	98.50	A	90
5088	Red Clover (*Pan American*)..... J. J. Moreau & Son, Manchester	A	98	S	90
5304	Red Clover (*White Mountain*)..... Muzzey & Hopkins, Lakeport	S	99.50	S	94
5149	Red Clover ..... W. F. Peel, Nashua	A	97.50	S	92
5317	Red Clover ..... J. P. Pitman & Co., Laconia	S	98	S	94
5126	Red Clover (*Pan American*)..... Rand, Ball, & King Co., Claremont	S	98	A	90
5243	Red Clover ..... The Read-Esty Co., Farmington	S	98.36	S	94
5352	Red Clover (*Pan American*)..... Ned C. Rogers, Tilton	S	98.50	S	90
5226	Red Clover (*Pan American*)..... S. A. Schurman & Son, Portsmouth	S	98.50	S	90

A—Above. S—Satisfactory.

SEED EXAMINATION, 1925—*Continued.*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer	Purity		Germination	
		F'nd	Guaranteed	F'nd	Guaranteed
5191	Red Clover (*Ace Medium*) ..... J. H. Seavey, Dover	S	98.05	S	93
5399	Red Clover (*Medium*) ..... Shepard Grocery Co., Franklin	S	98.28	S	92
5164	Red Clover ..... Strafford Co. Grain Mill, Rochester	S	98.28	S	92
5136	Red Clover (*Ace Medium*) ..... Thompson & Hoague, Concord	A	98.64	S	90
5051	Red Clover (*Medium Imported Pine Tree*) ..... John B. Varick Co., Manchester	A	99	S	90
5072	Red Clover (*Fancy Mammoth*)..... John B. Varick Co., Manchester	A	98.76	A	92
5168	Red Top (*Patterson's*) ..... Ayers & Jenkins Co., Rochester	A	90.10	S	88
5170	Red Top (*Ace*) ..... Ayers & Jenkins Co., Rochester	S	91	S	90
5330	Red Top (*Eureka*) ..... Belknap County Farmers' Exchange, Laconia	A	90	S	90
5110	Red Top ..... Boynton & Ellis, Claremont	A	90.10	S	90
5151	Red Top (*Choice*) ..... A. H. Britton & Co., Concord	S	93	S	90
5387	Red Top ..... O. A. Brown, Ashland	S	90	S	90
5229	Red Top (*Fancy Pine Tree*)..... R. L. Costello, Portsmouth	S	93	S	92
5279	Red Top (*Fancy Ace*)..... J. Cushing Co., Milford	S	90.70	S	91
5271	Red Top (*No. 1, Fancy*)..... Daniel's Grain & Grocery Co., Hudson	S	90	S	90
5481	Red Top (*XX*) ..... Edson & Kinne, Littleton	78.96	85	65	85
5174	Red Top (*Pan American*)..... E. C. Foss Co., Rochester	A	90	S	90
5296	Red Top (*Fancy*)..... C. J. Goss, Lakeport	S	92.24	S	90
5512	Red Top (*Pine Tree, Fancy*)..... C. M. Hildreth & Son, Lebanon	S	93	S	90
5263	Red Top (*Fancy*)..... Hill Hardware & Paint Company, Nashua	S	92.24	A	90
5184	Red Top (*Pan American*)..... Jenness Hardware Co., Dover	S	90	S	90
5293	Red Top (*Pan American*)..... J. Jones & Son, Alton	S	92	S	90
5308	Red Top (*Pan American*)..... J. Jones & Son, Alton	S	90	S	90
5311	Red Top (*Fancy*)..... J. Jones & Son, Alton	S	95.15	S	90
5490	Red Top (*XXX*)..... C. C. King Co., Whitefield	S	90	S	88
5064	Red Top (*Ace, Fancy*)..... Manchester Hardware Co., Manchester	S	91.70	A	87
5069	Red Top (*Ace, Fancy*)..... Manchester Hardware Co., Manchester	A	90.30	S	90

A—Above. S—Satisfactory.

SEED EXAMINATION, 1925—*Continued.*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer	Purity		Germination	
		F'nd	Guaranteed	F'nd	Guaranteed
5097	Red Top (*Ace*) McQuesten & Lewis, Manchester	A	90.90	S	90
5107	Red Top (*Ace*) Merrimack County Farmers' Exchange, Concord	A	91.70	S	87
5087	Red Top (*Pan American*) J. J. Moreau & Son, Manchester	A	90	S	90
5327	Red Top (*Ace*) J. H. Morrill, Laconia	88.58	91.70	S	90
5300	Red Top (*White Mountain*) Muzzey & Hopkins, Lakeport	92.54	95	S	90
5261	Red Top (*Pan American*) Nashua Grain Co., Nashua	S	90	S	90
5208	Red Top (*Fancy*) F. W. Neal, Dover	S	92.24	S	90
5214	Red Top (*Eurcka*) F. W. Neal, Dover	93.02	96	S	90
5140	Red Top (*Bay State*) W. F. Peel, Nashua	A	90	S	90
5147	Red Top (*No. 1, Fancy*) W. F. Peel, Nashua	A	90	S	90
5347	Red Top (*Ace*) O. A. Plummer, Tilton	S	90.10	A	90
5112	Red Top Rand, Ball & King, Claremont	89.40	92	S	90
5319	Red Top (*Fancy Acc*) Rand & Dearborn, Laconia	S	90	S	90
5331	Red Top (*Fancy*) Rand & Dearborn, Laconia	S	92.24	S	90
5356	Red Top (*Eurcka*) C. N. Roberts, Meredith	S	95	S	90
5332	Red Top (*Pan American*) H. C. Sanborn, Laconia	S	90	S	88
5224	Red Top (*Pan American*) S. A. Schurman & Son, Portsmouth	S	92	S	90
5195	Red Top (*Ace, Fancy*) J. H. Seavey, Dover	S	90	S	92
5407	Red Top (*Ace*) C. P. Stevens, Est., Franklin	S	90.70	S	91
5157	Red Top (*Bay State*) Strafford Co. Grain Mill, Rochester	A	90	S	90
5106	Red Top Thompson & Hoague, Concord	S	91.70	S	90
5134	Red Top (*Ace*) Thompson & Hoague, Concord	A	91.40	A	80
5061	Red Top (*Ace, Fancy*) John B. Varick Co., Manchester	A	90	S	90
5075	Red Top (*Pine Tree*) John B. Varick Co., Manchester	A	93	S	92
5076	Red Top John B. Varick Co., Manchester	S	54.60	S	65
5340	Red Top (*Fancy Recleaned*) John B. Varick Co., Manchester	93.11	—	92	—
5541	Red Top (*Ace,Fancy*) F. B. Williams, Enfield	S	90	S	90
5238	Red Top (*No. 1, Fancy*) E. T. Willson, Farmington	S	90	S	90
5557	Red Top (*Pan American*) W. A. Young, Exeter	S	92	S	90
5092	Rutabaga (*Purple Top*) J. J. Moreau & Son, Manchester	S	98	70	92

A—Above. S—Satisfactory.

SEED EXAMINATION, 1925—*Continued*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer	Purity		Germination	
		F'nd	Guaranteed	F'nd	Guaranteed
5132	Rutabaga (*Shamrock Swede*)..... Thompson & Hoague, Concord	S	90	S	94
5120	Rutabaga (*American Purple Top*).. Thompson & Hoague, Concord	S	90	S	90
5048	Rutabaga (*American Purple Top*).. John B. Varick Co., Manchester	—	—	83	97
5222	Rye (*Minn. grown*)..... R. L. Costello, Portsmouth	S	98	S	94
5066	Rye (*Spring*) ..... Manchester Hardware Co., Manchester	S	90	S	85
5412	Rye (*Spring*) ..... H. G. Holton, Lancaster	S	98	S	90
5215	Rye (*Winter*) ..... F. W. Neal, Dover	S	98	S	95
5400	Rye (*Rosen*) ..... C. P. Stevens, Est., Franklin	S	96.06	S	90
5053	Rye (*Spring*) ..... John B. Varick Co., Manchester	S	98	S	94
5111	Soy Beans (*Black Eyebrow*)..... Merrimack County Farmers' Exchange, Concord	S	99.50	S	85
5058	Sweet Clover (*White*)..... John B. Varick Co., Manchester	A	99	A	74
5169	Timothy (*Pine Tree*) ..... Ayers & Jenkins Co., Rochester	S	99.65	S	94
5272	Timothy (*XX*) ..... Baker Bros., Hudson	S	98	S	90
5329	Timothy (*Gold Medal*)..... Belknap Co. Farmers' Exchange, Laconia	S	99.70	A	90
5470	Timothy (*Bison*) ..... Bell Hardware Co., Derry	S	99	S	96
5109	Timothy (*Pine Tree*)..... Boynton & Ellis, Claremont	S	99.60	A	90
5153	Timothy (*Choice*) ..... A. H. Britton & Co., Concord	S	99	S	97
5495	Timothy (*Pine Tree*)..... F. P. Brown, Whitefield	S	99.60	S	94
5377	Timothy (*Extra Fancy, White Mtn.*) W. B. Brown, Ashland	S	99.65	A	95
5501	Timothy (*Herald*) ..... G. F. Clement & Son, Lisbon	S	98	A	90
5160	Timothy (*Liberty*) ..... Freeman Corson, Rochester	S	99.60	A	95.50
5166	Timothy (*Patterson's*) ..... Freeman Corson, Rochester	S	99.50	A	90
5228	Timothy (*Pine Tree*)..... R. L. Costello, Portsmouth	S	99.65	S	94
5278	Timothy (*Pine Tree*)..... J. Cushing Co., Milford	S	98.20	S	90
5476	Timothy (*White Mtn. Extra Fancy*) Edson & Kinne, Littleton	S	99.65	S	95
5477	Timothy (*XX*) ..... Edson & Kinne, Littleton	S	98	S	90
5522	Timothy (*XXX*) ..... N. G. English, Lisbon	S	99	S	93
5162	Timothy (*Pan American*)..... E. C. Foss Co., Rochester	S	99.50	S	90
5299	Timothy (*Gem*) ..... S. A. Garland & Son, Lakeport	S	98.70	S	94

A—Above. S—Satisfactory.

SEED EXAMINATION, 1925—*Continued*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer	Purity		Germination	
		F'nd	Guaranteed	F'nd	Guaranteed
5297	Timothy (*Liberty*) ..... C. J. Goss, Lakeport	S	99.60	S	94
5506	Timothy (*XXX*) ..... Holbrook Grocery Co., Woodsville	S	99	S	93
5527	Timothy (*Monadnock*) ..... Holbrook Grocery Co., Woodsville	S	99.50	S	94
5530	Timothy (*Monadnock*) ..... Holbrook Grocery Co., Woodsville	S	99.60	S	94
5437	Timothy (*Pan American*) ..... H. G. Holton, Lancaster	S	99.60	A	90
5507	Timothy (*Pan American*)..... C. M. Hildreth & Son, Lebanon	S	99	A	90
5510	Timothy (*White Mountain*)..... C. M. Hildreth & Son, Lebanon	S	99.65	S	95
5200	Timothy (*Pan American*)..... Jenness Hardware Co., Dover	S	99.50	S	90
5202	Timothy (*Pine Tree*)..... Jenness Hardware Co., Dover	S	99.60	A	94
5307	Timothy (*Liberty*) ..... J. Jones & Son, Alton	S	99.60	S	93
5309	Timothy (*Pan American*)..... J. Jones & Son, Alton	S	99.50	A	90
5313	Timothy ..... J. Jones & Son, Alton	S	99.60	S	98.50
5276	Timothy (*Bay State*) ..... Kendall & Wilkins, Milford	S	99.65	S	94
5489	Timothy (*Pine Tree*)..... C. C. King Co., Whitefield	S	99.60	S	96
5065	Timothy (*Pine Tree*)..... Manchester Hardware Co., Manchester	A	99.65	S	94
5070	Timothy (*Pine Tree*)..... Manchester Hardware Co., Manchester	S	99.65	A	94
5358	Timothy (*Pan American*)..... Meredith Grain Co., Meredith	S	99.60	S	90
5108	Timothy (*Pine Tree*)..... Merrimack County Farmers' Exchange, Concord	S	99.60	S	94
5556	Timothy (*Pine Tree*)..... Merrimack County Farmers' Exchange, Concord	S	99.60	A	95
5086	Timothy (*Pan American*)..... J. J. Moreau & Son, Manchester	A	99	A	90
5315	Timothy (*Pine Tree*)..... J. H. Morrill, Laconia	S	99.65	S	94
5325	Timothy (*Pan Ameican*)..... J. H. Morrill, Laconia	S	99.50	S	90
5521	Timothy (*Pan Ameican*)..... Moulton & Clark, Lisbon	S	99.60	A	90
5301	Timothy (*White Mountain*)..... Muzzey & Hopkins, Lakeport	S	99.05	S	95
5260	Timothy (*Pan American*)..... Nashua Grain Co., Nashua	S	99.60	S	90
5205	Timothy (*Pan American*)..... F. W. Neal, Dover	S	99.60	S	90
5207	Timothy (*Liberty*) ..... F. W. Neal, Dover	S	99.60	S	94
5143	Timothy (*Bay State*)..... W. F. Peel, Nashua	S	99.60	S	94

A—Above. S—Satisfactory.

SEED EXAMINATION, 1925—*Continued.*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer	Purity		Germination	
		F'nd	Guaranteed	F'nd	Guaranteed
5259	Timothy (*Bison*) ..... Pelletier Bros., Farmington	S	98	S	90
5269	Timothy (*Pan American*)..... W. R. Peterson Co., Nashua	S	99.50	S	90
5474	Timothy (*Pan American*)..... Pike & Gale, Littleton	S	99.60	A	90
5475	Timothy (*XX*) ..... Pike & Gale, Littleton	A	98	S	90
5357	Timothy (*Pine Tree*)..... O. A. Plummer, Tilton	S	99.60	S	94
5125	Timothy (*Pan American*)..... Rand, Ball, & King, Claremont	S	99.60	A	90
5245	Timothy (*Pine Tree*)..... The Read-Esty Co., Farmington	S	99	S	94
5354	Timothy (*Gold Medal*)..... C. N. Roberts, Meredith	S	99.75	50	94
5186	Timothy (*Pine Tree*) ..... J. H. Seavey, Dover	S	99.65	S	95
5188	Timothy (*Pine Tree*)..... J. H. Seavey, Dover	S	99.65	A	94
5194	Timothy (*Pine Tree*)..... J. H. Seavey, Dover	S	99.65	S	94
5401	Timothy (*Gem*) ..... Shepard Grocery Co., Franklin	S	98.70	S	94
5158	Timothy (*Gem*) ..... Strafford Co. Grain Mill, Rochester	S	98	S	94
5123	Timothy (*Pine Tree*)..... Thompson & Hoague, Concord	S	99.60	S	86
5127	Timothy (*Pine Tree*)..... Thompson & Hoague, Concord	S	99.60	S	95
5129	Timothy (*Pine Tree*)..... Thompson & Hoague, Concord	S	99.60	A	94
5049	Timothy (*Durham*) ..... John B. Varick Co., Manchester	S	99.60	A	94
5050	Timothy (*Pine Tree*)..... John B. Varick Co., Manchester	S	99.60	A	94
5237	Timothy (*Pan American*)..... E. T. Willson, Farmington	S	99.50	A	90
5240	Timothy (*Bay State*)..... E. T. Willson, Farmington	A	99.65	S	94
5559	Timothy (*Pine Tree*)..... W. A. Young, Exeetr	S	99.50	A	94
5103	Vetch (*Spring*) ..... J. J. Moreau & Son, Manchester	S	98	A	84
5113	Vetch ..... Merrimack Co. Farmers' Exchange, Concord	S	99.64	A	92
5536	Wheat (*Spring White Mtn., Extra Fancy*) ..... Holbrook Grocery Co., Woodsville	S	98.68	S	95
5201	Wheat (*Spring, Marquis*)..... Jenness Hardware Co., Dover	S	98	S	90
5378	Wheat (*Spring, Marquis*)..... J. E. Read & Son, Ashland	S	98	S	90
5386	Wheat (*White*) ..... Shepard Grocery Co., Franklin	S	98	S	98
5410	Wheat (*Spring, Marquis*)..... C. P. Stevens, Est., Franklin	S	99	A	95
5046	Wheat (*Marquis type*)..... John B. Varick Co., Manchester	S	99	S	98

A—Above. S—Satisfactory.

SEED EXAMINATION, 1925—*Concluded*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer	Purity		Germination	
		F'nd	Guaranteed	F'nd	Guar-
5171	White Clover ..... Ayers & Jenkins Co., Rochester	A	96	A	85
5152	White Clover (*Choice*)..... A. H. Britton & Co., Concord	S	98	S	97
5230	White Clover ..... R. L. Costello, Portsmouth	S	97	A	92
5185	White Clover (*Choice*)..... Jenness Hardware Co., Dover	S	93	S	80
5071	White Clover ..... Manchester Hardware Co., Manchester	A	93.85	A	95
5089	White Clover (*Choice*)..... J. J. Moreau & Son, Manchester	A	93	S	90
5302	White Clover (*White Mountain*).... Muzzey & Hopkins, Lakeport	A	93	S	96
5128	White Clover (*Choice*)..... Rand, Ball & King Co., Claremont	S	97	A	90
5318	White Clover ..... Rand & Dearborn, Laconia	S	97	S	86
5116	White Clover ..... Thompson & Hoague, Concord	S	95.65	S	95

A—Above. S—Satisfactory.

SUMMARY TABLE

Showing General Results of Seed Inspection Work
for the year ending June 30, 1925

Kind of Seed	Number of Samples	Purity Compared to Guarantee			Germination Compared to Guarantee		
		Above	Satisfactory	Below	Above	Satisfactory	Below
Alfalfa	6	2	4	0	3	2	1
Alsike	28	3	22	3	3	22	3
Barley	20	0	20	0	11	9	0
Bluegrass, Ky.	3	1	1	1	0	2	1
Buckwheat	7	0	7	0	4	2	1
Canada Field Peas	10	0	10	0	4	6	0
Corn	22	0	22	0	3	18	1
Lawn Grass	2	0	0	2	—	—	—
Mangles	4	0	4	0	0	3	1
Millet	46	3	37	6	7	35	4
Oats	23	0	23	0	6	17	0
Orchard Grass	2	1	1	0	0	2	0
Red Clover	35	7	28	0	9	26	0
Red Top	50	14	31	5	4	45	1
Rutabaga	4	0	4	0	0	2	2
Rye	6	0	6	0	0	6	0
Soy Beans	1	0	1	0	0	1	0
Sweet Clover	1	1	0	0	1	0	0
Timothy	67	4	63	0	22	44	1
Vetch	2	0	2	0	2	0	0
Wheat	6	0	6	0	1	5	0
White Clover	10	4	6	0	4	6	0
	355						